

REMARKS

Claims 1-18 are currently pending in the present application. In the Office Action, Claims 1-18 have been rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,397,367 (Park).

Please add new Claims 19 and 20. No new matter has been added. It is believed that Claims 19 and 20 are in condition for allowance.

In response, Claims 1-8 and 10-16 were amended in accordance with the definition of the expression "input transport channel frame", provided on page 5, third paragraph of the present specification. This amendment is made to clarify the relationship between different frame types recited in the claims of the present application. No additional matter has been added.

Park discloses a channel coding device, in which a bit inserter inserts known bits in an input data bit stream at predetermined positions. A channel coder codes the bit-inserted data bit stream to generate coded symbols. A rate matcher matches a rate of the coded symbols to a given channel symbol rate. A channel interleaver interleaves the rate matched channel symbols.

The claims of the present application recite a channel coding and multiplexing apparatus and method in a CDMA communication system where each of a number of radio frame matchers (equal in number or greater than the number of transport channels) has a radio frame segmenter and segments each data frame that may have different transmission time intervals into radio frames.

In rejecting independent Claims 1, 7, 8, 13, 14, and 15, the Examiner has pointed to Figure 15 of Park as teaching "each radio frame matcher having a radio frame segmenter for receiving a data frame, to segment the data frames into radio frames". Figure 15, however, shows a channel rate matcher 1506 that receives an input from a multiplexer 1505 and provides input to a channel interleaver 1507. The inventive radio frame matchers recited in independent Claims 1, 7, 8, 13, 14, and 15, and additionally in independent Claims 12 and 16, are shown in the inventive Figures 1 and

2 of the present application. Figure 1 shows radio frame matchers 101, 102, ... 10N. The radio frame matcher 101, for example, includes an interleaver 111, which provides input to a radio frame segmenter 121, the radio frame segmenter that is non-existent in Park but is recited in the aforementioned claims of the present application, which provides input to a rate matcher 131, which provides input to a multiplexer 200. Figure 2 shows radio frame matchers 151 to 15N. The radio frame matcher 151, for example, includes an interleaver 161, which provides input to a radio frame segmenter 171, which provides input to a multiplexer 600. Additionally, it is noted that the subject matter of Park's Figure 15 was discussed on page 5, lines 8-16 of the present specification, where reference was made to the 3GPP Technical Specification for Multiplexing Channel Coding, TS 25.212 version 1.0.0 1999.05.05. However, as discussed above, the claims of the present application recite a channel coding and multiplexing apparatus and method in a CDMA communication system where each of a number of radio frame matchers has a radio frame segmenter and segments each of data frames that have different transmission time intervals into radio frames and a multiplexer multiplexes these segmented radio frames to form a serial data frame. Park does not teach or describe the radio frame matchers recited in independent Claims 1, 7, 8, 12, 13, 14, 15 and 16. Based on at least the foregoing, withdrawal of the rejections of Claims 1, 7, 8 and 12-16 is respectfully requested.

The Examiner also identified column 14, lines 20-45 of Park as teaching a multiplexer for forming a serial data frame as recited in Claims 1, 7, 8, 13, 14, and 15. Specifically, the Park multiplexer is defined in column 14, lines 23-24 as "a multiplexer 1505 multiplexes the rate matched user data symbols and control data symbols." Contrarily, the multiplexer recited in the claims of the present application, described on page 10, lines 11-12, "multiplexes the data frames KF_1 to KF_N received from the rate matchers 131 to 13N to a serial data stream of size P..." Furthermore, Park does not teach or describe a multiplexer for multiplexing the radio frames to form the serial data frame recited in Claims 1, 7, 8, 13, 14, and 15, as well as recited in Claim 12 and 16. Based on at least the foregoing, withdrawal of the rejections of Claims 1, 7, 8 and 12-16 is respectfully requested.

The Examiner further identified Figure 16 and column 15, lines 1-30 of Park as teaching "a demultiplexer for demultiplexing the serial data frame to radio frames of a plurality of transport channels" as recited in Claims 17 and 18. Figure 16 fails to show radio frame desegmenters 417,

427, and 4N7 shown in Figure 4 and as recited in Claims 17 and 18 of the present application. Figure 16, or for that matter any sections of the Park specification do not teach or describe "each radio frame dematcher having a radio frame desegmenter for receiving the corresponding radio frames and for desegmenting the radio frames" as recited in Claims 17 and 18.

In view of the above discussion, it is believed that rejection under 35 U.S.C. § 102 should be withdrawn, and independent Claims 1, 7-8, and 12-18 be allowed. Without conceding the patentability per se of dependent Claims 2-6 and 9-11, these are likewise believed to be allowable by virtue of their dependence on their respective independent claims.

Accordingly, all of the claims pending in the Application, namely, Claims 1-20, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



Paul J. Farrell
Reg. No. 33,494
Attorney for Applicant(s)

DILWORTH & BARRESE, LLP
333 Earle Ovington Blvd.
Uniondale, New York 11553
Tel: (516) 228-8484
Fax: (516) 228-8516